

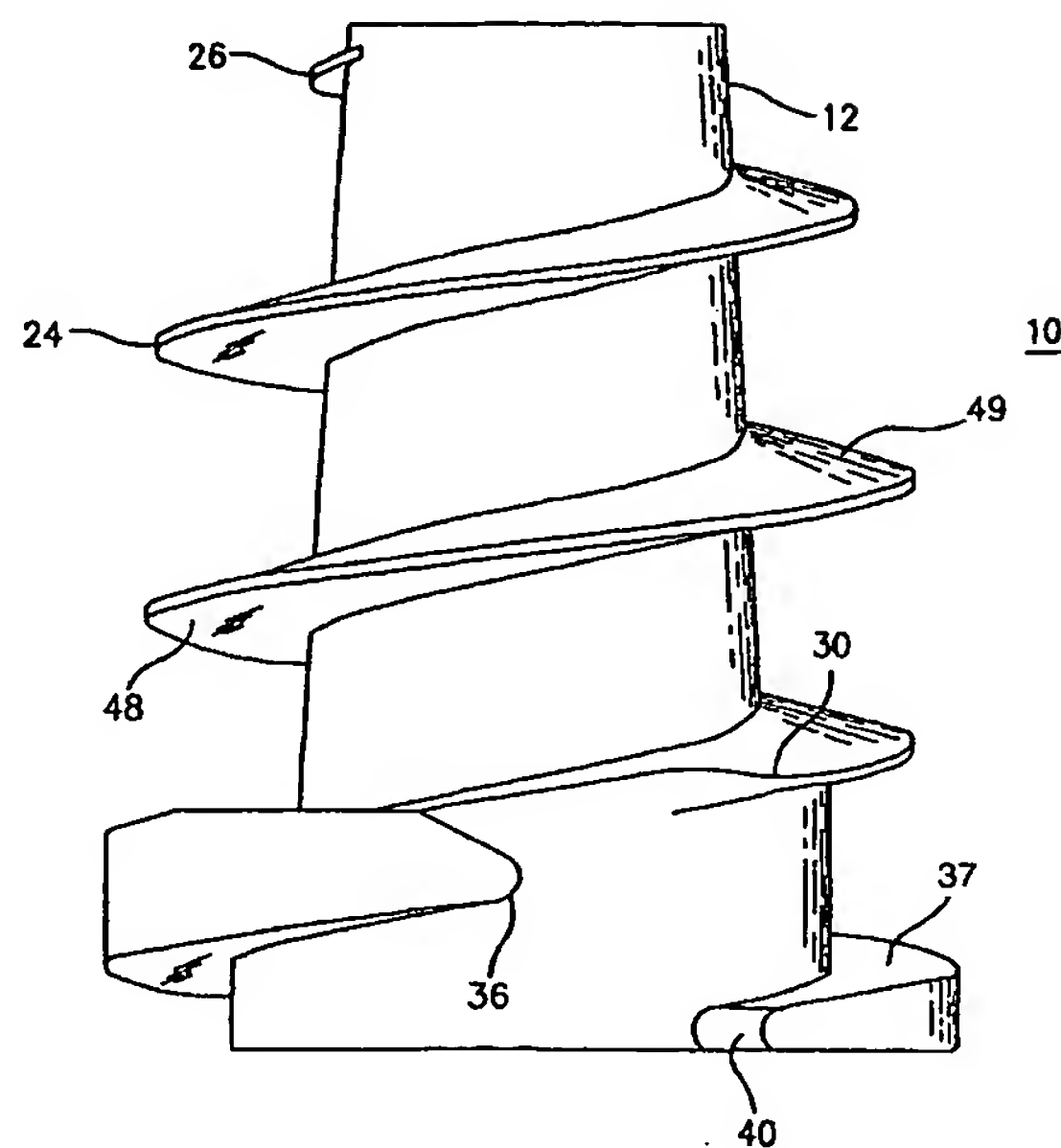
**REMARKS**

The above-identified application has been reviewed in light of the Office Action mailed on December 1, 2006. By the present amendment, the Applicants have amended claims 21 and added claims 32-38. It is respectfully submitted that the claims pending in the application are fully supported by the specification, introduce no new matter, and are patentable over the prior art.

In reviewing the drawings for accuracy, Applicants have noted an omitted reference character in the figures. Reference character "37", which is included in the specification on page 7, line 22, was mistakenly omitted from FIGS. 7 and 8 of the drawings. Applicants respectfully submit that the "Replacement Sheets" included herein, correct the omission and do not introduce any new matter.

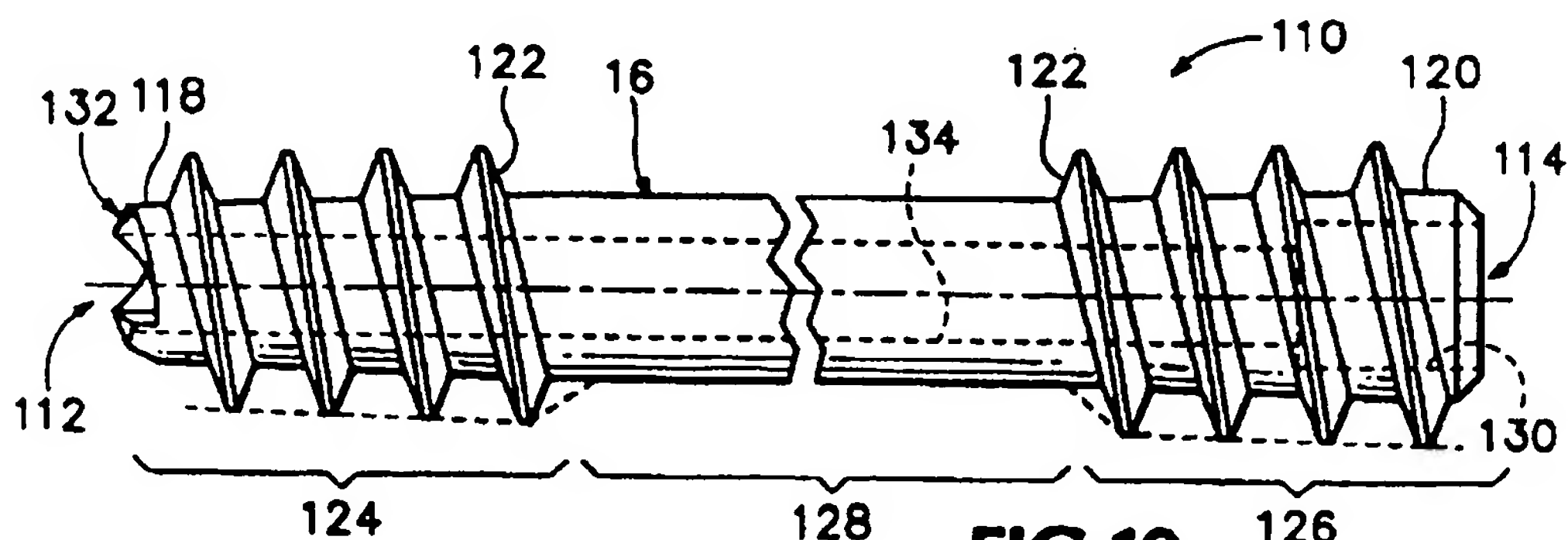
In the Office Action, claims 21, 23-24 and 27 were rejected under 35 U.S.C. § 102 (b) as being anticipated by U.S. Patent No. 6,030,162 to Huebner (hereinafter, "Huebner"). The Office Action stated that Huebner discloses a surgical tack having a head with a drive thread formed on an outer surface of the head, a barrel portion extending from the head, a tissue engaging thread formed on an outer surface of the barrel that is discontinuous with the drive thread, and a throughbore extending through the head and the barrel portion for receipt of a drive tool.

Claim 1, as amended, recites a surgical tack for attaching a material to tissue including inter alia, a head having a drive thread, a barrel portion extending from the head, and a tissue engaging thread, "wherein a portion of the drive thread and a portion of the tissue engaging thread define a gap therebetween within one convolution of threading."



**FIG. 7**

Support for amended claim 21 can be found in Figure 7 of the application (reproduced hereinabove) and on page 7, lines 20-22. As disclosed in the specification, the "trailing edge 30 of tissue thread 24 and leading edge 36 of drive thread 34 are discontinuous and do not form one continuous thread."



**FIG. 10**

As shown above in Figure 10, Huebner discloses a screw 110 including a front end 12, a back end 11, and a root portion 16. The root portion includes a leading end 118 and a trailing end 120. Screw 110 has a screw thread 122 formed thereon in a leading section 124 and a

Appl. No. 10/517,402  
Amdt. Dated February 26, 2007  
Reply to Office Action Mailed December 1, 2006

trailing section 126, with an unthreaded section 128 therebetween. Huebner specifically discloses a screw having threaded leading and trailing sections with an "unthreaded section" between the leading and trailing sections 124, 126 (column 6, lines 20-21), wherein the unthreaded section spans over multiple convolutions.

Huebner fails to disclose or suggest that "a portion of the drive thread and a portion of the tissue engaging thread define a gap therebetween *within one convolution* of threading" as recited in amended claim 21. Therefore, Huebner fails to disclose or suggest a surgical tack including, *inter alia*, a tissue engaging thread and a drive thread wherein "a portion of the drive thread and a portion of the tissue engaging thread define a gap therebetween within one convolution of threading" as recited in amended claim 21. Accordingly, it is respectfully submitted that the rejection of the Office Action has been overcome and that claim 21 is in condition for allowance.

Furthermore, since claims 23, 24, and 27 depend from amended claim 21, it is respectfully submitted that these claims are also in condition for allowance.

In the Office Action, claim 26 was rejected under 35 U.S.C. § 103 (a) as being unpatentable over Huebner. According to the Office Action, Huebner fails to disclose a chamfered drive thread on the head portion, but discloses a chamfer on the leading section. The Office Action asserted that it would have been obvious to add a chamfered portion to the head portion.

As discussed hereinabove, Huebner fails to disclose or suggest the surgical tack recited in amended claim 21. Since claim 26 depends from independent claim 21, it is respectfully submitted that the rejection of the Office Action has been overcome and that claim 26 is in condition for allowance.

• Appl. No. 10/517,402  
Amdt. Dated February 26, 2007  
Reply to Office Action Mailed December 1, 2006

In the Office Action, claims 25 and 28 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Huebner in view of U.S. Patent No. 5,169,400 to Mühling et al. (hereinafter Mühling). The Office Action stated that Huebner discloses a throughbore, but fails to disclose that the throughbore has a D-shaped cross-section. According to the Office Action, would have been obvious to modify the throughbore of Huebner to include a shape that better applies the torque of an insertion tool as disclosed in Mühling.

As discussed hereinabove, Huebner fails to disclose or suggest the surgical tack recited in amended claim 21. Adding the non-circular throughbore of Mühling fails to cure the deficiencies of Huebner. Mühling fails to disclose or suggest any features that, in combination with Huebner, would suggest the surgical tack recited in amended claim 21. Since claims 25 and 28 depend from independent claim 21, it is respectfully submitted that these claims are in condition for allowance.

By this present amendment, Applicants have added new claims 32-38. Applicants respectfully submit that claims 32-38 are fully supported by the specification and that no new subject matter has been added by these claims.

As discussed above, Huebner fails to disclose or suggest the tack recited in amended claim 21. Since claims 32 and 33 depend from independent 21, it is respectfully submitted that these claims are also in condition for allowance.

Independent claim 34 recites a surgical tack including, *inter alia*, first and second threads, "wherein a leading edge of the first thread and a trailing edge of the second thread are spaced apart thereby defining a discontinuity therebetween, the leading edge of the first thread and the trailing edge of the second thread are both in a common plane." Huebner fails to disclose or suggest that a portion of the threading defines a discontinuity as recited in independent claim

• Appl. No. 10/517,402  
Amdt. Dated February 26, 2007  
Reply to Office Action Mailed December 1, 2006

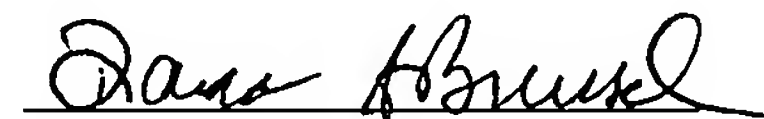
34. As discussed hereinabove, Huebner specifically discloses a screw with two sections of threading that are axially spaced apart along the root portion of the screw. Each section of threading includes multiple complete turns of the threads. Because Huebner fails to disclose or suggest a discontinuity between the sections of threading in a common plane, Huebner fails to anticipate or suggest the surgical tack recited in independent claim 34. Therefore, it is respectfully submitted that independent claim 34 is allowable over the prior art of record.

Furthermore, since claims 35-38 depend from independent claim 34, it is respectfully submitted that these claims are also allowable over the prior art of record.

Prompt and favorable action on these claims, namely claims 21, 23-28, and 32-38, is earnestly requested. Should the Examiner desire a telephonic interview to resolve any outstanding matters, the Examiner is sincerely invited to contact the undersigned at (631) 501-5713.

Respectfully submitted,

Carter, DeLuca, Farrell & Schmidt, LLP  
445 Broad Hollow Road - Suite 225  
Melville, New York 11747  
Tel.: (631) 501-5713  
Fax: (631) 501-3526

  
Dana A. Brussel  
Reg. No. 45,717  
Attorney for Applicant(s)

**Send correspondence to:**  
Chief Patent Counsel  
U.S. Surgical, a Division of  
Tyco Healthcare Group  
195 McDermott Road  
North Haven, Connecticut 06473